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I.—ON ADAPTATION OF SUFFIXES IN CONGENERIC CLASSES OF SUBSTANTIVES.

The term adaptation is used here to designate the infusion with some definite grammatical or lexical value, of a formal element originally either devoid of any special functional value, or possessed of a value which has faded out so completely as to make this infusion possible. Thus in English *sing, sang, sung*; German *werde, ward, (ge-)worden* the different vowels are felt to be the carriers of the tense-distinction. Here the association of the vocalic variations with temporal distinctions is a comparatively recent development: the variation (ablaut) is due to phonetic causes, very largely differences in accentuation, which had no direct connection with temporal distinctions. But with the decay of the inflectional elements which did convey the distinctions of tense, the vowel of each form was associated more and more with the special vocalic color of the root, until in modern English radical *i* is to all intents and purposes the significant vowel of the present, *a* of the imperfect, and *u* of the perfect passive participle. It is as though Homeric *δέρκομαι, δέδορκα, ἔδρακον* had in the later development of Greek speech become subject to a phonetic corruption which stripped them of personal inflections, reduplication and augment resulting in pres. **δερκ*, perf. **δορκ*, aor. **δρακ*, and *ε, ο, α* would then be felt as the respective causes of the varying tense-values. An instance in which the grammatical value of a form has faded out so completely as to permit its infusion with a new value, originally altogether foreign to it, is the use of the element *-mini* in Latin as the personal inflection of the second plur. passive. Lat. *legimini* (sc. *estis*) is = *λεγόμενοι*, nom. plur. masc.

of the middle-passive participle. After this form had been woven into the paradigm of the present passive its origin was entirely forgotten; it was felt to be a personal inflection, and was then extended throughout the passive system, yielding *legēbāminī*, *legēminī*, *legāminī* and *legereminī*, thus succeeding in adapting the form *-minī* completely to the use of an ordinary personal inflection. Other cases of adaptation in modern English are contained in *men*, *feet* as the plur. of *man*, *foot*: here the umlaut (cf. Germ. *männer*, *füsse*) has been adapted as a plural sign; in *oxen* as plur. of *ox* (Germ. der *ochs*, des *ochsen*, both singular): here the element *-en-* originally a nominal suffix (cf. Vedic *ukṣān-* 'ox'; Lat. stem *homin-* 'man') has been adapted to use as a sign of the plural. Cf. in general Paul, *Prinzipien der Sprachgeschichte*², p. 172; Delbrück, *Einleitung in das Sprachstudium*¹, pp. 66 fg. (where Ludwig's theory and writings on adaptation are quoted and discussed), 96 fg.; Windisch, *Personalendungen im Griechischen und Sanskrit*, *Transactions of the Royal Saxon Academy*, March 2, 1889, pp. 7 fg.

1. The Greek Nominative ποῦς.

An ancient riddle of Greek grammar is the Ionic-Attic nominative ποῦς, gen. ποδός. A more original nominative in Greek appears in Doric πῶς, preserved in the gloss of Hesychius, πῶς¹ · πός. ὑπὸ Δωριέων (cf. also his other gloss πόρ · ποῦς. Δάκωνες). The diphthong ου of ποῦς cannot hail from proethnic times, as the related languages have only monophthongs: ē in Latin *pēs* (**pēd-s*) and *com-pēs*; ō in Doric πῶς, Lat. *com-pōs* = *com-pēs* in Priscian i. p. 26 H, Gothic *fōt-us*, nom. plur. Old Norse **fōt-ir* in *fōetr* (umlaut); ǫ in ποδός, Lat. *tri-pod-ātus*; Umbrian *du-purs-us*, *petur-purs-us* 'bipedibus, quadrupedibus' (Iguvian tablets vi. b); ě in *ped-is*, πῆξα (**ped-īā*), etc.; reduced root *pd-* in Zend *fra-bd-a-* 'fore-foot.' Nowhere is there an opening for an original Greek diphthong ου = I. E. *ōu* or *ou*;² the stem evidently belongs to the so-called *e-o*-series. As a special Greek *phonetic* development, Attic oxytone ποῦς could stand only for **πόυς* (cf. Cretan *τύυς* = Attic *τούς*)

¹ For the accent of this form see the author in A. J. P. IX 15; Brugmann, *Griechische Grammatik*², §74.

² Sk. *pād*, gen. *pād-ds*; Zend *pād-em* and *pādēbyō* exhibit the same relations of quantity as appears in the European languages: the qualitative relation has disappeared. But there is no diphthong.

or **πόνυς* like the participle *δοῦς* for **δό-ντ-ς*. For these there is no basis.

Various attempts have been made to explain the form, some in recent years, e. g. by Joh. Schmidt in KZ. xxv. 16, and Solmsen ibid. xxix. 358, note. I regard them as unsatisfactory and omit their refutation. G. Meyer, Griech. Gramm.² §313, says: 'Attisch *ποῦς* jedenfalls eine Neubildung ist bisher unerklärt.' Very recently Brugmann, Grundriss ii. 450; Griechische Grammatik², §74, is of the same opinion. I believe that Attic-Ionic nom. *ποῦς* foot is made in direct imitation of Pan-Hellenic *δοῦς* tooth,¹ the point of contact being the meaning: *both are parts of the body*. Designations of parts of the body exercise strong analogical influence upon one another, and occasionally the suffix of some one of them succeeds in adapting itself so as to be felt the characteristic element which bestows upon the word its value. That is to say, when such a suffix has spread analogically to a greater or lesser extent within the category, then the meaning of the category may be felt to be dependent upon the special form of the suffix, or, stated conversely, the suffix may be infused with the special characteristic of the category; after that, when occasion arises to form new words of this same class, the suffix is put into requisition as though it were the essential element which imparts to the word its special significance. This thesis, though stated narrowly for the present only in reference to designations of parts of the body, is sufficiently important to justify our dwelling upon it at length; it will in the end lead us to a much broader field than the one just indicated. First we shall assemble certain cases in which assimilation and adaptation has influenced designations of parts of the body.

2. Designations of parts of the body by heteroclititic stems in *r* and *n*.

As early as I. E. times a considerable group of designations of parts of the body were formed after a peculiar heteroclititic declension. They were neuters having the casus recti in *-r* and the casus obliqui in *-n*:

liver: *ἥπαρ*, *ἥπαρος*; Lat. *jēcur*, *jēcīnoris* (for **jecinīs*: the syllable *or* came in from the nominative, perhaps through the

¹Aeolic *ἔδοντες* is transformed by popular etymology (*ἔδω*). *ῥῥῶν*, Hdt. vi. 107; Herodian ii. 928, 11, is the result of proportional analogy: *ἰδόντες*: *ἰδῶν* = *ῥῥόντες*: *ῥ*, i. e. *ῥῥῶν*.

channel of the genitive *jēcoris*, which in turn was made upon the base of the nom.; cf. *über-is* below); Sk. *yákrt*, *yaknds*; Zend *yākare* (Zend-Pehlevi glossary: the oblique *n*-stem does not occur); Lith. *jekn-os*, fem. plurale tantum, and *jekanas* (Bezzenberger, zur Geschichte der litauischen Sprache, p. 291) are based upon the *n*-stem, the *r*-stem being wanting. Through the medium of a 'ground-form' *liēqrī* Joh. Schmidt, Die Pluralbildungen der indogermanischen Neutra, p. 198 fg., adds to this group the German words for 'liver,' Ohg. *libera*, *lebera*, Ags. *lifer*, as also Armenian *leard* and Old Prussian *lagno*.

udder: oððap, οἰðαρὸς; Sk. *ūdhar*, *ūdhnas*; Latin *uber*, which has passed also into the oblique cases: the *n*-stem perhaps in *Oufen-s* (Festus), *Ufen-s* 'name of a river.' Germanic forms: Mhg. *üter*, Nhg. *euter*, Ags. *of ūdrum* 'uberibus,' Eng. *udder* exhibit the *r*-stem; in Ohg. dative sg. *ūtrin* there is mixture of *r*- and *n*-stems in reversed order from that which has taken place in Lat. *jecinoris*; see above.

blood: Vedic *ásr̥g* (TS. *ásr̥t*), *asnás*, classical Sanskrit *asr-a-m*; Greek *εἶap*, Epic *εἶap* = **ēap*, the corresponding *n*-stem being lost; Lat. *assir* in Festus, Paul Epit. p. 16; Loewe, Prodr. 142. I. Lettish *asins* presents the *n*-stem. I. E. *ēsṛ̥* or *ásṛ̥*, gen. *asn-ós*.¹

thigh: *fēmur*, *fēminis* with assimilations in both directions; the nom. *fēmen* (rare according to Priscian vi. 52) and the genitive *fēmoris* (cf. *jēcoris*, above).

wing: *r*-stem, Lat. **peter* in *acci-piter*² 'quick-wing, falcon'; the *n*-stem *petn-* in *penna* for **petn-a* 'wing, feather.' The *r*-stem further in *περ-ό-v*, Ohg. *federa*, *fedara*, Ags. *feðer*, Sk. *patr-a-* 'wing, feather,' Zd. *patere-ta-* 'winged' (cf. *περω-τό-s*), Cymric *atar* 'winged.' The *n*-stem further in Cymric *etn*, Old Irish *én* 'bird.' The recent discussion of the word by Joh. Schmidt, loc. cit. pp. 173-176, seems to establish the I. E. bases *pér̥*, gen. *petn-ós* in close parallelism with the word for 'blood' above: *ásṛ̥* or *ēsṛ̥* (cf. *εἶap*), gen. *asn-ós*.

inner body, viscera, vein: Homeric *ἥτορ* with Aeolic *op* for

¹ According to De Saussure (Mémoire, p. 225), Lat. *san-gu-en* (Ennius ap. Cic.) belongs to this group, *san-* for (a)*sn-* with *gu* from the nom. (cf. Sk. *ásr̥g*). The *-en* at the end a second time in deference to the old declension of the word in the oblique cases (Vedic *asn-ós*). Differently W. Schulze, KZ. xxix. 257.

² *accipiter* for **acu-piter* (cf. *acu-pedius*, *ὠκυβ-ς*) may be the result of popular etymology which associated the word with *accipio*; see Joh. Schmidt, Pluralbildungen, p. 174.

ap (Schmidt, *ibid.* 177) 'heart' and ἡτρ-σ-ν 'abdomen'; Ohg. *ādara*, *inn-ādīri* 'viscera,' Ags. *aedre*, Old Norse *aeðr* 'vein,' Obg. *ědro* 'bosom' (formed like ἡτρον), Oir. *in-athar* 'entrails.' The complementary *n*-stem is wanting, but the restriction of the declension of ἡτρον in Homer to the casus recti (dative ἡτροι later, Simon. 7. 7) shows that the type was once **éter*, **ētn-ós*, or the like. For the variety of meanings cf. Vedic *hirā* 'vein,' Lat. *hīra* 'intestine,' *harū-spex* 'he who inspects the entrails, soothsayer.'

excrement: σκῶρ, σκατός; Sk. *śákṛt*, *śaknás*;¹ Lat. *mūs*-(*s*)*cerda*, Festus 146 (thence *cerda* falsely clipped off for *bū-cerda*, etc., Schmidt, *ibid.* 178); Old Norse *skarn*; Obg. *skvrīna*; Lith. *tu skverne* 'invective against misbehaving children.' In the last three the *r*- and *n*-stems are blended; cf. *jecinoris* and *utrin*, above.

nerve, sinew, etc.: I. E. casus recti *snēuer*, *snēur-t*; casus obliqui *snēun-ós*, etc. Zend *snāware* 'sinew,' Ossetic *navr* 'vein,' Ohg. *snuor* 'schnur,' Goth. *snōr jō* 'wicker-basket,' from stem *snēuer*. The stem *snēurt* in Arm. *neard* 'nerve, sinew,' Hübschmann, *Armenische Studien*, p. 45, Nr. 217. The *n*-stem in Vedic *snāvan* 'sinew, string.' Greek νεῦρο-ν contains the usual extension to the *o*-declension = *snēuro-*. For Latin *nervu-s* see Vanicek, *Griechisch-Lateinisches Wörterbuch* ii. p. 1161.

gall: Gr. χολερός seems to be an extension of an *r*-stem (cf. ἡμέρα: ἡμαρ) which is supplemented by the *n*-stem contained in Ohg. *galla*, O. Norse *gall*, Lat. *fellis*. The stems seem to have been I. E. *zholr-*, *zholn-ós* or *zheln-ós*. Cf. Froehde, Bezz. Beitr. vii. 105; Johansson, Gött. Gel. Anz. 1890, Nr. 19, p. 766, note.

mouth, jaw: Zend *zafare*, gen. *zafanō*. The *r*-stem is occasionally extended into the oblique cases: dat. *zafrē*; nom. plur. *zafra*. The *n*-stem also in *pri-zafanem* acc. sg. masc. 'three-headed.'

flat of the hand, sole of the foot: θέναρ, θέναρος (the *r*-stem extended through the oblique cases), ὀπισθεναρ for *ὀπισθόθεναρ (haplography) 'outer hand,' ὑπόθεναρ 'palm under the thumb'; Ohg. *tenar*, *tenra*, Mhg. *tener* 'flat hand.'²

¹ *śak-* for *sak-* by assimilation of the dental sibilant to the guttural of the consecutive syllable; see Bloomfield and Spieker, *Proceedings of the American Oriental Society* for May, 1886, p. xl. (*Journal*, Vol. xiii, p. cxxi). Is Lat. *cōram* (**cōsam*) from a root whose Sk. equivalent is *kāṣ* = *kās* 'to be visible'? Cf. *sa-kāṣa* 'presence,' *sakāṣe* 'in the presence of, near,' Āçv. Gr. i. 18. 7.

² The adaptation of the suffix *r-n* to this group extended itself also to the originally broader meaning of the word, which seems to have been 'flat

The limitation of this class is not by a hard and fast line. Perhaps *δδερο-ς* · *γαστήρ* (Hesych.), Vedic *udarā-m* and *udāra-m* belly, stomach, represent another *r*-stem of this class, extended by the suffix *-ο-*. Likewise *σῦφαρ* 'wrinkled skin' (cf. Lat. *sūber* 'cork-tree: tree with wrinkled bark'); *ιχώρ* lymph, ichor (cf. *ἔαρ* 'blood') and *ἄχωρ* scurf (cf. *σκῶρ* 'excrement') may belong here, in part by later adaptation within Hellenic times. For the remaining stems in *ρ* in Greek see below, p. 21, note.

That so large a portion of the limited group of heteroclitic nouns in *r-n* should have been absorbed by designations of parts of the body admits of but one explanation. The suffix, in the first place, had no intrinsic value which rendered it especially suitable for words of this kind. It was employed accidentally in some one or two such designations, and thence it was extended gradually by single acts of analogy, becoming more and more productive, until it had adapted itself in proethnic times to this special use. As it was, it never became restricted exclusively to such use (see *ῥδωρ*, *ῥδατος* and more below): neither did the entire domain of designations of parts of the body succumb to it, nor did it sharpen its own physiognomy to such an extent as to be rendered unfit for other service.

3. Designation of parts of the body by other heteroclitic declensions with *n*-stems in the oblique cases.

The *n*-stems which appear in the oblique cases of the heteroclitic declension in *r-n* occupy the same territory, the oblique cases, in the paradigms of certain other heteroclitic declensional types; here also the meaning is prevailingly that of parts of the body. The process of adaptation which resulted in the feeling that oblique cases of *n*-stems, when combined with *r*-stems in the casus recti, were suitable for this class of nouns, appears in operation—also in proethnic times—with other stems: consonantal stems, *i*-stems, *s*-stems:

ear: genitive *οὔστρος* for **οῖστρος*, Gothic *ausin-s*. The stem of the casus recti is partly consonantal, as in Latin *aus* of *au(s)-dire*, *aus-culto*, Old Irish *ó*; partly *i*-stem as in Lat. *auri-s*, Lith. *ausì-s*

expanse, *ἄλος θέναρ* 'expanse of the sea,' cf. Vedic *samudrāsya dhānvan* 'on the strand of the sea.' If *dhānvan* = *θέναρ* (for **θεῖναρ*, cf. *εἰδαρ* and *ἔδαρ*, Hesych.) we have the *n*-stem which has been expelled by the *r*-stem in Greek. Cu. Etym.⁵, p. 255, compares also Mhg. *tenni* 'tenne.'

(in both the *i*-stem is extended through the paradigm), Zend *uši*¹ 'ear,' Obg. *uši* 'the ears'; and partly *s*-stem as in *ausos* in Obg. *ucho*, gen. *ušese*. According to Joh. Schmidt, KZ. xxvi. 17, Pluralbildungen, p. 407, Greek *οἰς*, Doric *ῶς* are the contracted forms of **οῖσος* rather than the direct equivalents of Latin *aus-*. In German the *n*-stem, Goth. *ausin-*, nom. *ausō*, just as in *augō*, *hairtō*, etc., below, has usurped the entire paradigm.

head: gen. Ved. *ζῆρσηάς*, Hom. *κράτος*, Attic *κράτος*. The *n*-stem also in *ἀμφι-κράνω-ς* 'two-headed.' Casus recti, originally: Sk. *giras* 'head, point' = *κέρας* 'horn,'² Lat. **ceres* in *cerebrum* for **ceres-rom* (Brugmann, Grundriss i. p. 430; ii. p. 175); Old Norse *hjarsi* 'crown of the head,' Ohg. *hirni* for **hirzni* (mixture of the *s*- and *n*-stems as in Ved. *ζῆρσηάς*: Kluge, Paul und Braune's Beiträge, viii. 522 fg.).³

eye: Gothic genitive *augins*, Sk. gen. *akṣhās*: the *ṣ* = I. E. *s* is from an *s*-stem I. E. *oq-os* = Obg. *oko*, gen. *ocese* (cf. the *s*-stem in the nom. of the word for 'ear,' above). Joh. Schmidt finds the *n*-stem corresponding to *augin-* in *προσ-ώπασσι* and Hom. *εὐρύ-οπα* (ibid. 109, 398, 400); the *n*-stem corresponding to Sk. *akṣn-* indirectly in Aeolic *ῥππατα* (ibid. 408 fg.). The casus recti were made from the *s*-stem *oqos*, above; from *i*-stems in Lith. *akì-s* 'eye,' **augi-* in Goth. *and-augi-ba* 'plainly,' Ohg. *augi-wis* 'publice,' and the duals *ῥσσε* = **oq̃e*, Obg. *ōci*, Zend *aši*;⁴ and from consonantal stems *ἐλίκ-ωπ-ες* 'Ἀχαιοί', Hom. The German has passed the entire paradigm of the word into the *n*-declension: Goth. *augō*, Ohg. *auga*; cf. *ausō* above. For Arm. *akn* see p. 9.

The productivity of this suffix in the oblique cases of words for parts of the body, coupled with other stems in the casus recti,⁵

¹ So we may now write indiscriminately all Zend *sh*-sounds, since Geldner's edition of the text renders the separation into varieties of secondary importance; cf. A. V. W. Jackson, The Avestan Alphabet, p. 20.

² But Hesych.: *κέρας*· κεφαλῇ; Etym. Mag. 504, 50: *κέρας* λέγεται καὶ ἡ κεφαλῇ. Original meaning of the group: 'the highest part of the body: head with men; horn with horned animals.'

³ Exhaustive collections of material, and thorough discussions of this stem and its derivatives in Danielsson, Grammatische und Etymologische Studien I. *kāpa*, *κέρας*, Upsala Universitets Årsskrift, 1888; Joh. Schmidt, Pluralbildungen, pp. 363-378.

⁴ The last three Schmidt, ibid. p. 398, regards as consonantal stems with dual ending *i*.

⁵ Except when the entire paradigm of the words of this class has assumed the *n*-type, as is the case in German and Armenian; see Gothic *ausō*, *augō* above, and cf. the next subdivision of this article.

continues in a marked fashion in the separate languages. It is of course impossible to say in every case that this condition is a creation of the separate language: often the *n*-stem may have been lost in all but one language. But there are cases when it may be assumed with great show of probability that the process of adaptation which started this non-descript suffix upon a strongly individualized career in I. E. times was repeated anew by several of the languages. We begin with the cases from the German, where the domain of the neuter *n*-stems is almost entirely monopolized by designations of parts of the body; see Kluge, *Stammbildung*, §78.

heart: gen. Goth. *hairtins*, with secondary nom. *hairtō*. The old casus recti were formed from consonantal stems: κῆρ(δ), Ved. *su-hārd* 'of friendly heart'; Lat. stem *cord-*, Sk. *hṛd*, Zend stem *zered-* in instrumental *zeredā*, Yasna 31. 12 (Geldner's ed.); and from *i*-stems, Vedic nom. *hṛdī*, Ohg. *herzi-suht* 'cardia,' Lith. *szirdi-s*, Obg. *sridi-ce*. Cf. also Greek καρδία and κρᾶδια, and Sk. *hṛdaya-*.¹

testicle: Old Norse *eista*, neuter *n*-stem. An *s*-stem, perhaps as original representative of the casus recti, appears in Obg. *isto* 'testicle' (cf. the *s*-stems *oko* 'eye,' *ucho* 'ear').

cheek: Ohg. *wanga*, neut.; Ags. *wonge*, neut. Old Norse *vange* is masculine; Old Saxon *wanga* is fem. See Kluge, *Nominale Stammbildungslehre*, §78ab; Schmidt, *Pluralbildungen*, p. 107.

lung: Old Norse *lunga*. Kluge, *ibid.*; Schmidt, 108.

ankle: Old Norse *okla*. See *ibid.*

collar-bone: Old Norse *viðbeina*. See *ibid.*

breast-bone: Old Norse *flagbrjóska*. See *ibid.*

The following oblique cases of *n*-stems are restricted to Sanskrit, though in more than one case the possibility that correspondents existed in the related languages must be taken into account.

mouth: Sk. gen. *āsn-ās*. Casus recti Lat. *ōs*, Sk. *ās*, consonantal stems; (*āsya-m*), *āsia-m*, *io*-stem.²

¹ The *n*-declension of this stem is at least Proto-Germanic and may, as far as the oblique cases are concerned, reach back to I. E. times, though this does not admit of proof: Goth. *hairtō*, Old Norse *hjarta*, Old Saxon *herta*, Ohg. *herza*. Ags. *heorte* has assumed the feminine gender.

² According to Geldner, *Metrik* d. jüing. Avesta, and KZ. xxiv. 548, Zd. *āōñhānō*, Vend. iii. 29, and, according to Bartholomae, *Bezz. Beitr.* xv. 33 fg., Zd. *asne* and *āsnaē-ca* also represent the *n*-stem (*āsn-*) of this word. The heteroclis is in that case may date back to Indo-Iranian times.

bone: Vedic gen. *asthn-ás*. Casus recti *ásthi*, Lat. *os*, stem *ost-*, gen. *oss-is*. Even the Zend, the nearest relative of Vedic, has the gen. *ast-as(ca)* according to the consonantal declension. Greek *ὀστέ(ε)ον* 'bone' and *ὄστυ-ος* 'bony.'¹

thigh: Vedic gen. *sakthn-ás*, casus recti *sákthi*. No certain correspondent in any of the related languages. Cf. De Saussure, *Mémoire*, p. 226.

fore-arm: Vedic gen. *doṣṇ-ás*. The casus recti have consonantal *dos*, which in the later language penetrates into the casus obliqui, e. g. *dor-bhyām*, *Mhbhār.* i. 153, *dor-bhis*, *Mālavikā* 77.

In Zend also we may note the inroads of this adaptation in two cases of especial interest:

nose: The abl. *nāoñhanat* occurs at *Vend.* iii. 46; ix. 158. It is based upon an *n*-stem *nāsn-*. The prevailing inflection in Vedic is upon the basis of the consonantal stem *nās-* in nom. du. *nāsā*, and oblique cases *nas-ā*, *nas-í*, *nas-ós*. Cf. Old Persian acc. *nāham*.

tooth: The stem *dantan-* represents the prevailing form of this word, and it has remained masculine notwithstanding its transition to this type. See Justi, sub voce, and *dantāno*, nom. plur. masc. *Zend-Pahlavi Glossary* (Haug and West, pp. 8. 3; 49. 14, etc.). In addition to this the stem *dāta-* in *dātāhva*, *Vend.* xv. 4, and *tīži-dāta-*, *Vend.* xiii. 16, is left as the representative of the old consonantal stem, which has passed into the *a*-declension. *dāta-* = *dñt-á-*?

4. Designations of parts of the body in Armenian.

Upon the ground of the Armenian we do not venture with full confidence, as the history of the individual words involved in this discussion is by no means clear in every detail. But it is worth while to point out how completely the *n*-declension has taken hold of the designations of parts of the body; in fact, how large a part of the territory occupied by such *n*-stems, as are at all clear etymologically, is in the hands of the semasiological category in question. We have here in the first place the word for eye, nom. *akn*, gen. dat. *akan*. Here the *n*-declension in the oblique cases is certainly old, and has absorbed the entire paradigm just as in Goth. *augō*, *augins*. Cf. Hübschmann, *Armenische Studien*, p. 17, Nr. 4. The word for ear, *unkn*, is treated most recently by

¹ Possibly *ὄστα-κος* for **ὄστν-κος* 'crab' shows a trace of the *n*-stem in Greek; cf. Brugmann, *Grundriss* ii. p. 243.

Friedrich Müller, *Armeniaca* vi. p. 5, Nr. 49 (Transactions of the Imperial Academy of Vienna, Vol. cxxii. 1890). The form is explained most naturally on the supposition that it is based upon the old *n*-stem of the oblique cases: *ušn-* = Goth. *ausin-* = Gr. *oŷa-* (τος). I would suggest that to this was added the *-kn* of *akn* eye, making *ušn-kn*, which changed to *unkn*: the words for eye and ear are especially prone to assimilate; see below, p. 13, note. Now it is surely not the result of accident that *armukn* elbow, gen. *armkan* (Hübsch. p. 21, Nr. 45) and *mukn*, gen. *mkan* muscle (also 'mouse,' Hübsch. p. 44, Nr. 206) are declined in a parallel fashion. It is hard to believe that we have not here the adaptive influence of *akn* eye and *unkn* ear.¹ But further, we find under the control of the *n*-declension the words for tooth *atamn*, gen. dat. *ataman* (Hübsch. p. 20, Nr. 33); for nose, *rungn* (Müller, p. 6, Nr. 55); for foot, *otn*, gen. *otin* (Hübsch. p. 46, Nr. 230); for hand, *jern*, gen. *jerin* (ibid. p. 40, Nr. 174). We have thus eight designations of parts of the body, most of them very common, exhibiting similarities of treatment which is in some instances palpably secondary (e. g. in *otn*, which represents the I. E. stem *pōd-*), and due no doubt in some measure to assimilation with other members of the same class. It is of course possible that the transition of these words to the *n*-declension is only a part of the more general movement which has drawn other Armenian substantives into the weak declension; see Hübschmann, ibid. p. 18, Nr. 12; p. 19, Nr. 22; p. 20, Nr. 31; p. 28, Nr. 86; p. 40, No. 180; p. 44, Nr. 207; p. 48, Nr. 245; p. 55, Nr. 291. We do not venture to decide in every detail the points here suggested, but would emphasize once more that the *kn* at the end of four of these words is in all probability due to adaptation, while, as a matter of fact, the appearance as *n*-stems of eight of these words presents essentially the same outcome which we have seen in the spread of the *n*-suffix in the Germanic designations of members of the body.

5. The I. E. word for 'member, limb.'

An old I. E. word for part of the body in general seems to me to have fallen under the ban of this adaptation of the *n-r*-suffix. Lat. *membru-m* is now generally explained as coming

¹ In the case of *mukn* the *k* may be the residue of an original diminutive stem reflected by Lat. *muscu-(lus)*, Sk. *mūṣaka*: this rendered the adaptive process easier.

from *mēns-ro* = Old Irish *mīr* 'piece of flesh,' from **mēns-ra-*, both being derived by secondary extension by suffix *-ro-* from an old stem for 'flesh,' Vedic *māṁsá-* 'flesh,' *māṁs-pácana-* 'pertaining to the cooking of meat'; Goth. *mīmza-* 'meat,' Obg. *mešo* 'meat.' But the Irish derivative with *-ro-* still means 'meat,' and not 'limb.' On the other hand, Vedic *márman*, which the Petersburg Lexicon—perhaps without desire to etymologize—translates by 'membrum,' is the true semasiological correspondent of *membrum*; see e. g. AV. vi. 75. 18: *mármāṇi te vármaṇā chādayāmi* 'I cover your limbs with a coat of mail.' At Kāuṣ. 13. 6 seven members (*sapta marmāṇi*) are spoken of, and the commentator specifies—with what justice it is hard to say—*pādamadhyāni nābhihṛdayam mūrdhā ce 'ti.*¹ Vedic *márma* is I. E. *mérmp*, and may have had the *r*-stem **mermer* as well as its usual side-form in *-o*, **mermro-*; cf. above Sk. *asra-* by the side of stems *asn-* and *ásṛg*; *pátra-* and *πετρό-* by the side of *acci-piter*; *ḥtro-* by the side of *ḥτρο-*, etc. The stem **mermro-* containing a group of three consonants, was relieved to **memro-*, probably before the individual Italian period; cf. in general De Saussure, *Mémoire de la Société de Linguistique*, vi. 246 fg. Italic **memro-* becomes *membro-* as *hibernu-s* for **hībrino-s* for **hīmbrinos* = Greek *χειμυρό-s*, as *tūber*, stem **tūbro* for *tūmbro-* = Sk. *túmra-s* 'fat, strong.' See Louis Havet, *Mémoires de la Société de Linguistique*, iii. 416; Osthoff, *Morph. Unters.* v. 85 fg.²

6. Gothic *fōtus* and *tunpus*.

Of especial interest for the problem which stands at the head of this paper is a small group of words designating parts of the

¹ The Hindus always feel the etymology which they ascribe to the word (root *mar* 'to die'): accordingly, the notion of 'vital part of the body' ever and again crops out in connection with the word. The medical *çāstras* speak of five different categories of *marman*, which are subdivided so as to amount altogether to 107 *marmāṇi* or vital parts of the body; see Wise, *A Digest of Hindu Medicine*, p. 69 fg.; cf. also Nirukta ix. 28; xiv. 7; Yājñav. iii. 102, and the list of citations from *Suṣruta* given in the *Pet. Lex.* sub voce *marman*. If the word is proethnic, as is assumed above, their interpretation is secondary, and it may be fairly questioned whether there is any connection at all with root *mar* 'to die.'

² Possibly **mermro-* survived until the early Italic period, producing **membro-*, losing its *r* after the development of the transitional *b*, just as in a later Italic period Lat. *marmōr-*, **marmr-* yielded French **marmbre*, which was relieved by the loss of the *m* in modern *marbre*.

body in Gothic and other Germanic dialects. The question has often been asked why the I. E. stem. *pōd-* foot, Proto-Germanic *fōt-*, should have become *fōt-u-s* in Gothic. The comparison with the Vedic अप. लेय. *pād-ú-s*, glossed by Durga at Nirukta v. 19 with *jangamana* 'course,' has but little in its favor. The view, formulated most clearly by Bernhard Kahle, *Zur Entwicklung der Consonantischen Declination im Germanischen*, p. 9 (cf. also Brugmann, *Grundriss* ii. p. 450), is now generally accepted. According to Kahle, the *u*-inflection of the Gothic stem began in the acc. sg. and pl.: *fōtu* = Proto-Germ. *fōtum* = I. E. *pōdm̥*; *fōtuns* = Proto-Germ. *fōtuns* = I. E. *pōdn̥s*. These forms coincided with the corresponding cases of *u*-stems, and furnished the point from which the old consonantal declension could slip over into the *u*-declension.¹ But it is not a little striking, in the light of our investigation, that the Gothic word for tooth has the very same inflection: nom. *tunpus*, etc. Here also it is perfectly possible that the acc. sg. *tunpu*, acc. plur. *tunpuns*, dat. plur. *tunpum* should have offered occasion for a change from the consonantal to the *u*-declension (see Kahle, p. 15). But whence the coincidence? Why should the same analogy have completely overrun both words independently in Gothic? It must be remembered that in the remaining German dialects the decay of the proethnic consonantal declension of each of these words was followed by an eager line of aspirants from all possible other declensions: *i*-declension (e. g. Ohg. dat. plur. *fuazim*, *zenim*), *n*-declension, *o*-declension, etc.; see Kahle, pp. 8 fg. and 14 fg. It has hitherto passed without notice that in the consideration of these two words their character as designations of parts of the body might play a role, and further that they belong to a group of at least four words of the same category, *handus* hand and *kinnus* chin, cheek being the other two. Of these *kinnus* is certainly the continuation of a pre-Germanic *u*-stem = Gr. γένυ-s, Lat. *genu*-(*īnu*-s) 'belonging to the cheek' (*dentes genuīni*); Sk. *hānu-s* 'jaw,'² etc.

¹According to Kahle, pp. 8, 9, the dat. plur. *fōtum* is also an independent analogical intruder into the paradigm: it is made in accordance with the prevailing type of the dat. plur. of consonantal stems *nahtum* = Proto-Germ. **nahtumi* for **nahtm̥mi*; Proto-Germ. *fōtm̥i* would have yielded **fōtm*, not *fōtum*. This form, therefore, may be added to *fōtum* acc. sg., and *fōtuns*, acc. plur., making in all three *u*-forms as the basis of the entire *u*-declension.

²Goth. *kinnu-s* for **kinu-s*: the *nn* from oblique cases in which the stem-final came to stand before a vowel: *kinu-* became *kinn-* as *manu-* = Vedic stem *mānu-* 'man' became *mann-*, and spread over the entire paradigm.

The word for hand seems to have been originally a consonantal stem which passed over into the *u*-declension, but its transition has been very much more complete than that of the stems for foot and tooth; the *u*-declension of hand was in all probability largely completed in Proto-Germanic times, although here also forms of other declensional types (e. g. Ohg. dat. plur. *hentim*) are not wanting; see Kahle, *ibid.* p. 27. I believe now that the development of the entire group was as follows: Proto-Germanic **kin-u-s* encountered in early German times certain cases of *hand*-which looked like *u*-forms: acc. sg. *handu(m)*; acc. plur. *handuns*; dat. plur. *handum(i)*. The semasiological kinship of the two stems drew on the latter to the approximate completion of its declension according to the *u*-type; these two sought out in Gothic two more designations of parts of the body, *fōt-* and *tunþ-*, the way being again prepared by the existence in each of the ambiguous forms, the acc. sg. and plur. and the dat. plur. (see above). One may venture to intimate still more precisely that *kinnus* completed the development of *tunþus*, and *handus* the development of *fōtus*, since tooth and jaw, hand and foot have special affinities and were doubtless often mentioned in pairs. The difference in the gender, *kinnus* and *handus*, feminine; *tunþus* and *fōtus*, masculine, presented no difficulty, since fem. and masc. *u*-stems in Gothic are inflected precisely alike; as far as the Gothic documents in our possession are concerned we may remember that *kinnus* and *handus* render the Greek feminines γένυ-s and χεῖρ, while *fōtus* and *tunþus* reproduce the Greek masculines ποῦς and ὀδοῦς.¹

¹ Further instances of the adaptation of suffixes designating parts of the body may be contained in the following cases: Vedic *sānu-*, *snū-* back, which I would compare with Gr. νύσσα for *σνυ-κλα or *σνυ-τλα 'turning-point,' lit. 'that to which the back is turned,' and Lat. *sinu-s* 'curve, bosom,' is of a structure very parallel to *ḡānu-*, *-ḡnū-* knee, Gr. γόνυ, γνύ-ξ. These two pro-ethnic stems are not only both designations of parts of the body, but they share also the notion of 'bent surface, curvature'; it seems likely that the special structure which separates these two groups from all others is due to some extent to mutual assimilation. Possibly Vedic *ḡṛṅga* horn owes its difficult secondary suffix *-ga-* (cf. Lat. *cornu*, Goth. *haurn*, Runic *horn*) simply to Vedic *dṛṅga* limb; the meanings are again peculiarly near each other. This explanation seems to me not less plausible than that advanced by Kluge, Festgruss an Böhtlingk, p. 60. The frequent parallelism in the form of words for eye and ear has been noted; see, e. g. Schmidt, Pluralbildungen, pp. 250, 389, 406. The same scholar, *ibid.* 250, note, assumes the influence of the Vedic dual *akṣyāu* 'the eyes' upon Vedic *sakthyāu* 'the thighs'; the meanings are quite as far apart as those of ὀδοῦς and ποῦς, *fōtus* and *tunþus*.

7. Excursus on words for right and left.

À propos of Gothic *handus* a few remarks on words for right and left. The words for right from the root *deks* show an astonishing variety of suffixes, though the meaning is apparently the same. They may be grouped as follows:

Suffix -ino-.	Suffix -uo-.	Suffix -tero-.	Suffix -jo-.	Suffix -tmmo-.
Sk. <i>dākṣiṇa</i> -. Zd. <i>dašina</i> -. Obg. <i>desinŭ</i> . Lith. <i>deszinė</i> 'right hand.'	Goth. <i>taihsva</i> -. Ohg. <i>zēso</i> (gen. <i>zēsues</i>). Old Ir. <i>dess</i> . Cymr. <i>dehou</i> .	Lat. <i>dexter</i> . Gr. δεξιτερός.	Gr. δεξιός.	Lat. <i>dextimus</i> .

Some of these are secondary: Lat. *dextimus* presents the superlative suffix -*tmmo*- in addition to the comparative -*tero*- in *dexter*, perhaps after such a proportional analogy as *inferus* : *infirmus* = *dexter* : *x*, i. e. *dextimus*. Greek δεξιτερός right is certainly formed secondarily after its opposite ἀριστερός left. On the other hand, δεξιός and *dexter* represent old comparative formations whose antiquity there is no reason to doubt. Most noticeable are the forms in -*uo*-: Brugmann, *Rheinisches Museum*, vol. lxiii 401 has suggested that these are imitations after the opposite words for 'left,' represented by Lat. *laevo-s* = Gr. λαί-(*F*)ός = Obg. *lěvŭ*; Lat. *scaevo-s* = Gr. σκαί-(*F*)ός. I would suggest a somewhat broader basis which shall include both manifestations of the suffix -*uo*-: while -*tero*- and -*jo*- are original comparative suffixes, the suffix -*uo*- is a broader suffix of direction. *Comparison* and *direction* (e. g. Sk. *dākṣiṇa*- 'south'; Old Ir. *dess* 'south'; σκαίός 'western') are the two prominent phases of the function of the words of this category. In other words, I would see in the suffix -*uo*- in words for right and left the suffix which appears in I. E. *ṛdh-uo*-: Vedic *ūrdhvā-s* 'upright,' Gr. ὀρθ-(*F*)ός 'upright,' Lat. *arduo-s*, etc. In Vedic writings, e. g. AV. iv. 40; Kāuṣika-sūtra 116. 3 *ūrdhvā* is a designation of direction (*ūrdhvā dīṣ*) by the side of *prāci*, *dākṣiṇā*, *pratīci*, *ūdīci* (*dīṣ*); two more designations of direction in the same lists *dhruvā* and *vyadhvā* seem to exhibit the readiness with which this suffix adapted itself to words of direction. This point of view accounts also, we believe, for the appearance of the suffix -*uo*- in the two oldest I. E. words for all, *soluo*-: Gr. ὅλο-s and ὀλο-s, Lat. *salvo-s*, Sk. *sarvā*-, Zd. *haurva*-, etc.; and *uīkuo*-: Sk. *vīcva*-, Zd. *vīspa*-. These also were words

of direction. Only it may be questioned whether Sk. *viçva-* and Zd. *višpa-* are not themselves secondary assimilations to *soluo-* undertaken by these two languages independently, since Achemenidan *visa-* and Obg. *visi* exhibit no trace of the *u*. In the earliest Indian writings *viçva-* and *sarva-* jostle each other: the RV. has *viçva-* more frequently than *sárva-*; later *sárva-* gains the upper hand.

Brugmann, *ibid.* p. 399 fg., observes that a large number of words for 'left' are derived from roots expressing the idea of 'good, favorable, desirable, of good omen.' Upon this I would base the etymology of Vedic *savyá-* = Zend *havya-* 'left.' The older identification with *scaervo-s*, *σκαίό-s*, Fick³ i. 228 (cf. Curtius, *Etym.*⁵ 166) is not tenable; *sk* does not become *s* in Vedic or *h* in Zend, nor does Greek *σκαίό-s* exhibit epenthesis of *ι*. I regard *savyá-* as a derivative with comparative suffix *-iō-* from *sū* 'good,' just as *návya-* 'new, recent' is made with the same suffix from *nū* 'now.' Cf. Vedic *vāmá-* 'good' and *vāma* 'left.' Is Gothic *hleidd-uma-* 'left' to be compared with a supposable Sk. **çri-tama-* 'best'? The *d* (ð) in *hleidduma-* before the ordinary superlative suffix *-uma-* (*-umo-*) would then perhaps be due to adaptation from other superlative words of direction, e. g. Ags. *sīð-em-(est)*. Or is it simply a word of direction, containing the root I. E. **k̑leṣ-* 'to lean,' and connected with Ohg. (*h*)*lī-ta* 'inclined plane'; cf. κλί-τύ-ς 'hill'? cf. Brugmann, *Grundriss* ii. p. 159. In that case also the connection between *hleidduma* and words like *sīðem-(est)* seems very likely.¹

8. Assimilation of opposites, and assimilation of congeners.

If it shall turn out that the explanations offered in the preceding pages are true, we may allow ourselves to dwell for a moment upon the principle which they involve. In our opinion, this method of investigation is of great importance. It has been known for a long time that words of opposite value exert an attractive influ-

¹ Wackernagel, KZ. xxix. 134 has rendered likely that χερσ- is the stem for 'hand' in Greek. Can a bridge be built between this and Aryan **zhasta-*, Sk. *hāsta-*, Zd. *zasta-*, Achemenidan *dasta-*? I. E. **ǵhērs-to-*, relieved of its *r*, one of three consecutive consonants, would yield *ǵhes-to-*. Such is the treatment of the group *rst* in Latin: *to(r)stus*: *torreo*, etc., Stolz, Lat. Gr.² §65. 3d, p. 313. Possibly, Vedic *kistá-* 'singer, poet' may come from *kī(r)stá-* in some pre-Aryan period of speech, cf. *kīrti-* 'praise,' thus illustrating the same phonetic process.

ence upon one another,¹ and this knowledge has been used to good purpose, growingly year by year. The reason for this has, however, largely escaped notice: opposites attract each other because they belong semasiologically to the same class. Now, just as it is a sound mode of procedure while watching the historical change or development of a certain word, to keep an eye constantly upon the parallel development of its opposite or its opposites, so it is true method to consider all the members of that broader class of which the word and its opposite form are but single representatives. Let me illustrate by a new example which seems to me especially well calculated to place this point into the right light. The ordinary word for white in the Veda is *çvetá-*, a prehistoric word, comparable with Obg. *světŭ* 'light,' and less directly with Goth. *hveit(a)-s* 'white.'² By its side stands a rarer word with a slightly differentiated meaning *çyetá-* white, reddish-white, which looks altogether as though it were merely a modification of *çvetá-*; certainly no independent etymology for the word can be found. I would suggest that *çyetá-* is a modification of *çvetá-* after it had fallen under the influence of its opposites *çyāmá-* and *çyāvā-* black, dark. Thus much for the influence of these opposites upon one another. Now, this secondary word *çyetá-* white, duly takes a place among words of color in general, and forms a feminine *çyēnī* in accordance with the far-reaching fact—itsself no doubt due to adaptation—that color-words ending in *-ta-* make feminines in *-nī*; see below under paragraph 11, p. 26. But once more, the regular feminine of *çvetá-* is *çvetā-*: the word in this form has not obeyed

¹ Of the literature on this subject, which is constantly growing, I will point out only the following: Osthoff, *Morphologische Untersuchungen*, ii. 35; Wackernagel, *KZ.* xxv. 289 fg.; Brugmann, *Berichte der Kgl. Sächsischen Gesellschaft der Wissenschaften*, 1883, p. 191 fg.; Stolz, *Wiener Studien*, ix. 305; Wheeler, *Analogy* (Ithaca, 1887), p. 19; Brugmann, *Grundriss*, ii. 110, 292, 453 note 2, 465; Joh. Schmidt, *Pluralbildungen*, 207, 212 note. To the scant list of cases of syntactical analogy of opposites I would add Eng. *differ* with, which is a modification of *differ* from made in deference to the form and the meaning of *agree* with; to *differ* with means not to *agree* with; it never means to *differ* in form, character, etc. Does Greek *ἀλλοτός* owe its *v* to the influence of the stem *ήδύ-*?

² It looks as though Proto-Germ. **hveita-s* from I. E. **h₂ueito-s* owed its *t* instead of *p* (**h₂veipa-s*) to the analogy of its opposite **svarta-s*, I. E. *suordo-s*. Note Goth. *hveits* and *svarts*; Old Norse *hvitr* and *svartr*; Old Saxon *hwit* and *swart*; Middle English *hwit* and *swart*, etc.

the call of the adaptive law of the feminines just now alluded to. Yet Vopadeva iv. 27 reports a feminine *zvenī*, which is likely enough to have been formed somewhere or other in deference to the special inducement offered by that fem. *zvetā* : truly a clear illustration of the influence of an opposite blending with the influence of a congeneric word into one composite result. I believe that the presence of this principle in the minds of those who investigate the history of words will be found more and more a means of saving much acute but futile phonetics, and I hope to add a few more illustrations of this point in the sequel of this article. All this is of especial importance in the study of the history of noun-suffixes; the suffix must be considered from two leading points of view : first, in the light of the entire mass of material which has the same and related suffixes ; secondly, in the light of the semasiological category to which the word belongs. Kluge, in his *Nominale Stammbildungslehre der Altgermanischen Dialecte*, has emphasized the latter point of view perhaps a little too much at the expense of the former ; Brugmann, in the second volume of his *Grundriss*, has emphasized the first at the expense of the second ; only an appendix (ii. pp. 419 fg.) deals with the semasiological categories. Even this, however, is full of suggestion, as is everything which comes from the pen of this gifted scholar.

9. Designations of birds, animals, and plants in Greek.

In Brugmann's discussion of the Greek suffix *-κο-, -κ-* (nom. *-ξ*), *ibid.* pp. 243, 255, 257, there is no indication of the fact that this suffix is largely pre-empted by designations of animals, especially birds and plants. Thus :

1. Birds: *γλαῦξ* owl ; *ίέραξ*, *ίρηξ* hawk ; *ἰνγξ* (*ἰβυξ*) wryneck ; *καῦαξ*, *κηῦξ*, *κήξ* sea-gull ; *κόκκυξ* cuckoo ; *κόραξ* crow ; *κρέξ* = Lat. *crex* ; *ῥρνυξ* quail ; *πέρδιξ* partridge ; *ψήληξ* combless cock.

2. Other animals: *αἶξ* goat ; *ἀλώπηξ* fox ; *ἀσπάλαξ*, *σπάλαξ* mole ; *βόαξ* a fish ; *βόμβυξ* silk-worm ; *δέλφαξ* pig ; *λάβραξ* sea-wolf (fish) ; *λάλαξ* croaking frog ; *λείμαξ* snail ; *λύγξ* lynx ; *μύρμηξ* ant ; *πόρταξ* calf ; *πρόξ* roe ; *πτῶξ*, *πτάξ* hare ; *σκύλαξ* puppy ; *σκώληξ* worm ; *σφίγξ* wasp ; *τέττιξ* grasshopper ; *ὑστριξ* hedgehog ; *φοῖνιξ* phoenix. Persian *špaka*-dog promptly becomes **σπάξ*, acc. *σπάκα*, Hd. i. 110.

3. Plants and the like: γλῶξ beard of corn; δόναξ, δοῦναξ reed; ἀνθήριξ beard of corn; θρίδαξ lettuce; λάριξ lark-tree; νάρθηξ ferula; ὄμφαξ unripe grape; ὄρηξ shoot; ῥάξ, ῥώξ berry, grape; σμίλαξ yew; φοῖνιξ palm. Cf. also κάλυξ bud.

Even a superficial survey of these lists shows that there must have existed in the speech-sense of the Greeks the feeling that the suffix -ξ (nominative) was especially fit for designations of animals and plants, in other words that the suffix had adapted itself definitely to such use. Further, a glance at Kluge, *Stamm-bildung*, §61, p. 29, shows that the germs of this adaptation are pre-Hellenic. Ohg. *chranuh* kranich; Goth. *ahaks* dove; Ohg. *habuh* habicht, hawk; Ags. ruddoc; Middle Engl. puttock; Engl. pinnock exhibit the same suffix adapted to the same function, well established in German.¹ In all likelihood the adaptation of this suffix to the designation of birds began in proethnic times, and was emphasized anew in Greek and German; cf. Armenian *kʻunk* = Ohg. *chranuh*; ὄρνιξ = Sk. *vārtikā*, *vartaka*-. A survey of the Greek list of names of birds suggests furthermore one or two interesting details and questions. Brugmann, *Grundriss* ii. 243, suggests that *ν* of ὄρνιξ may be due to the *ν* of κόκκυξ, ἰβυξ, etc., the Sk. having *a* before the *k* (*var-taka*-.). Very likely, and I would suggest the same explanation for the *ν* of πτέρυξ wing. Joh. Schmidt, *Pluralbildungen*, p. 176 note, assumes that πτέρυγ- is a cumulative analogical formation (syncretic analogy), the result of two prehistoric stems, one having the final I. E. *z* without preceding *u* (Zd. **pterej*-, Old Netherl. *fetherac*); the other ending in *u* without the guttural (represented by Vedic *patāru*- 'flying'). Far simpler and quite as likely seems to me the assumption that some word for 'wing,' either πτερό-*ν* or a stem ending in a guttural not preceded by *u*, fell under the influence of bird-names in *νξ*, borrowing from them either the entire suffix -*νξ* or at least the *ν*. Bird and wing approximate one another about as closely in meaning, e. g. as night and sleep, whose similarity in meaning Joh. Schmidt, *ibid.* p. 212 note, employs to account for the formation of Vedic *svapṇayā* in sleep, after the pattern of *naktayā* by night. Again, the *ν* of nom. ὄρνιξ claw, nail may in its turn have been influenced by πτέρυξ and the names of birds in -*νξ*: the *ν* is in some

¹ For other designations of animals in German by definite suffixes which have no doubt spread by adaptation, see Kluge, *ibid.* §§3, 6, 18, 28, 34, 84, 100. Cf. also in general below, p. 24 fg.

way or other secondary ; cf. Sk. *nakhá-s*, Ohg. *nagal*, Lat. *unguis*, Lith. *naga-s*, etc. Similarly the word for egg, Ohg. *ei*, plur. *eigir* (Nhg. *ei*, *eier*) follows the adaptation of the I. E. suffix *-os*, *-es*, Proto-Germanic *-az*, *-iz*, which begins to play the role of a plur. suffix, at first largely in designations of animals, e. g. Ohg. *kalb*, plur. *kalbir* calf; see Kluge, *ibid.* §84; Brugmann, *Grundriss*, p. 395.

10. Designations of divisions of time.

That a chain of adaptation started to bind together in some early period of I. E. history the designations of seasons and divisions of time has, as far as I know, hitherto not been observed, or distinctly stated. The metaplastic declension in *-r* and *-n*, the same which proved so active in bringing together the designations of members of the body, has gained quite a considerable footing within this semasiological category. An old declension **vēser* or *vēsṛ* (casus recti), **vēsnés* seems to lie at the base of the multiform representatives of the I. E. word for spring. The *r*-stem appears in Greek *ἔαρ*, *ἦρ*, Lat. *vēr* (Brugmann, *Grundriss* i. 430), Old Norse *vār* (Schmidt, *Pluralbildungen*, p. 201); Zend *vañhr-i* (Zend-Pahlavi glossary); Lith. *vasar-à* 'summer'; perhaps also Vedic *vasar-hā* (Ludwig, *RV.* vol. iv. 191; Bartholomae, *Bezz. Beitr.* xv. 15). The *n*-stem is at the base of Obg. *vesn-a* and Vedic *vasan-tā*-spring.

The word for winter has developed early, though possibly secondarily, the same double suffix: *-r* in Greek *χειμερ-ιῶ-s*, Lat. *hibernus* (cf. above, p. 11), Armenian *jmeṛ-n*, gen. *jmer-an*; the *n*-suffix in Vedic *hemán-*, *heman-tā-*, Gr. *χείμα*, *χειμών*, Arm. *jiun* from **jivan* = **jiman*; see Hübschmann, *Armenische Studien*, p. 18, Nr. 12; p. 40, Nr. 178. The additional suffix with *n* in Arm. *jmeṛ-n*, *jmer-an* may represent the blending of the oblique *n*-cases with the casus recti in *-r*. The *r-n* suffix appears also in Arm. *amar-n*, gen. *amar-an* summer, the stem *amar-* being = Ohg. *sumar* (cf. Ved. *sámā* 'year,' Zend *hama* 'summer'); *-r* and *-n* are blended in this Armenian word just as in the word for winter. The word for night exhibits the *r*-stem in *νύκτωρ*, *νυκτερ-ίς*, *νυκτερ-ιῶ-s*, Lat. *noctur-nu-s*, Zend *nahtare* in *nahtourušu* (Bartholomae in *Bezz. Beitr.* xv. 19); the *n*-stem in the solitary Vedic *naktā-bhis* (*RV.* vii. 104, 8 = *AV.* viii. 4, 18) which Joh. Schmidt, *KZ.* xxvi. 18, and *Pluralbildungen*, p. 212, identifies with Goth. *nahtam* (*n*-stem). It has occurred to me that *naktabhis* by night might be the analogical opposite of *áhabhis* by

day (see below, p. 22), but the difference in the accent renders this unlikely; the accent of *naktābhis* is the old accent of the oblique cases, that of *āhabhis*, as well as the entire stem *āhan-*, seems to have followed the analogy of *āhar* and *āhas* (*āhobhis*). Goth. *nahtam* could also be imagined as the opposite of the *o*-stem *dagam*, but for Goth. *nahta-mats* 'supper,' which, like Goth. *auga-daurō* 'window' (cf. dat. plur. *augam*), has propagated the inorganic representatives of the *n*-stem: the *n*-stem seems therefore to be old.

The heteroclitlic declension appears most clearly in Gr. ἡμαρ (*hēma*), ἡμαρος day; Vedic *āhar*, *āhn-as* (Zend loc. *asni*) day; Zd. *ḡsapare*, gen. *ḡsafnō* night, Vedic *uṣar* dawn (extended to the oblique cases, gen. *usrās*); cf. also *vāsará-* early; Lith. *auszrā*, Gr. ἡέρι-*o-s*, αὔρι-*o-v*, ἡρι in the morning: a trace of the *n*-stem perhaps in Zend *uḡsānō* (= **uḡsānō*), according to Geldner, Bezz. Beitr. xiv. 1. The *r*-stem without the *n*-stem is found in Zd. *ayare* day;¹ Zd. *yāre*, *yāra-* year, Goth. *jēr*, Gr. ὥρα, Obg. *jarū*, *jara*; further in the German stem for winter in Ohg. *wintar*, Ags. *vinter*, Goth. *vintr-us*; and for summer: Ohg. *sumar*, Ags. *sumer*; see Kahle, *ibid.* p. 18; Kluge, *Stamm-bildung*, p. 2; Schmidt, *Pluralbildung*, p. 207. The *r*-stem appears also in Vedic *vatsará-* year, by the side of *vatsá-* 'yearling calf' and Gr. *Féros*: cf. Cu. Etym.⁶ p. 208; Hübschmann, *ibid.* Likewise in Latin *vesper*, *vespera*, Gr. ἑσπέρα evening, parallel but not identical with which are Lith. *vākara-s*, Obg. *večerū* 'evening': the suffix is the same as that of the Greek and Latin words. Cf. Schmidt, *ibid.* p. 18 note. Further, Ohg. *demar* 'crepusculum,' *demar-ungō* 'crepusculum' seems to hold the same relation to Ved. *tāmas* as *uṣar* - : *uṣas*, above; see Schmidt, *ibid.* p. 206. Here also belong Ohg. *wetar*, Ags. *weder* weather; cf. Obg. *vedro* hot weather; perhaps likewise the adverbially employed stems, Vedic *mūhur* quickly (cf. *muhūr-tā* moment); *sabar-* at once, in *sabar-dhūk* (nom.), *sabar-dūgha-* 'giving milk at once'; Ved. *pūnar* again; Zd. *iṣare* at once; Gr. ἀφ᾽ immediately, of which the corresponding *n*-stem may be contained in ἀφ᾽-ω of a sudden.²

¹ Schmidt, *Pluralbildungen*, p. 216 note, assumes that this word is the Zend representative of Vedic *āhar*, having changed its true form **azar* (cf. loc. *asni*) perhaps under the influence of *yāre* year. Cf. also *ayara-* 'genius of the day.'

² Very different etymological views in reference to this word have been advanced by Froehde, Bezz. Beitr. x. 294; Bartholomae, *ibid.* xv. 17; Schmidt, *Pluralbildungen*, p. 516 note. Cf. also Kretschmer in KZ. xxxi. 351.

The process of adaptation of the suffix to words for division of time obtained an additional impetus from their secondary adjective derivatives in *-ino-*; this, by clipping the final *r* of the stem, yielded *-rino-*, and seems to have become independently productive in proethnic times. The representatives of this formation are restricted to Greek and Latin: *ἐαρινό-s*, *χειμερινό-s* (cf. *θερινό-s*), *νυκτερινό-s*, *ἡμερινό-s*, *ἐσπερινό-s*;¹ Lat. *vērnu-s*, *nocturnu-s*, *diurnu-s*, *vesperna*, *hibernu-s*.²

¹ Suff. *-ino-* also exhibits in Greek signs of independent productivity as a means of making derivatives from words for divisions of time: *δειλινό-s*, *περυσινό-s*, *θερινό-s*, *ὀπωρινό-s*, *ἑωθινό-s*.

² Of recent years the view has been expressed with growing confidence that the *r*-stems in the heteroclitlic declension in *r-n*, and elsewhere, are in reality case-forms with original locative value, which have been made the basis of a more or less complete declensional system. Thus recently Bartholomae, Bezz. Beitr. xv. 14 fg.; Johansson, Gött. Gel. Anz. 1890, Nr. 19, p. 774. At the base of this view seems to lie the consideration that designations of time, space, and parts of the body are peculiarly addicted to such declensional methods (Johansson, *ibid.*). In the case of words for time and space which are a priori very liable to be employed in the locative, a certain degree of plausibility attaches to this view. But how about designations of parts of the body? Is it at all likely that the I. E. form, represented by *ἡπαρ* = Lat. *jēcur* = Sk. *yakṛt*, etc., ever meant in proethnic times 'in the liver,' though no such case value is ever attached to it in *any* period of I. E. speech? And why should the declension of the *casus recti* of the word for water *ῥῶα* = Ohg. *wazar* have developed paradoxically out of the locative, the *casus obliquus* par excellence? There are a plenty of other words in *-p* which have nothing to do with time, space, and parts of the body. I will mention from the Greek, without aiming at exhaustiveness: *ἄλειαρ*, *-ατος* 'wheaten flour'; *ἄλειφαρ*, *-ατος* 'unguent'; *ἄλκαρ* indecl. 'bulwark'; *δέλειαρ*, *-ατος* 'bait'; *εἴλαρ*, *-αρος* 'covering'; *ἐέλδωρ*, *ἐλδωρ* 'desire'; *ἐλωρ*, *-ωρος* 'booty'; *κέλωρ*, *-ωρος* 'son'; *κτέαρ*, *-ατος* 'possessions'; *λύμαρ* 'filth'; *μάκαρ*, *-αρος* 'blessed'; *μηχαρ* 'expedient'; *μῶμαρ*, *μῦμαρ* 'blame'; *νέκταρ*, *-αρος* 'nectar'; *ῥαρ* (*ῶρ*), *δαρος* 'consort'; *δναρ* 'dream'; *δνειαρ*, *-ατος* 'food'; *πεῖραρ*, *-ατος* 'end'; *πέλωρ* 'monster'; *πιαρ*, indecl. 'fat'; *σάκχαρ* 'sugar'; *στέαρ*, *-ατος* 'tallow'; *τέκμαρ*, *τέκμωρ* 'boundary, aim'; *ῥπαρ* 'waking vision'; *φρεαρ*, *-ατος* 'well.' Cf. also e. g. Lat. *iter*, *itineris* 'way'; *cicer*, *cicēris* 'pulse'; Ags. *tiber*, *tifer*, Ohg. *zēbar*, Nhg. *ziefēr*, *ge-ziefēr*, *un-ge-ziefēr*, as specimens from languages outside of Greek. These words, many of them old, exhibit the greatest variety of meanings, and the association of their *r*-forms with the locative can be undertaken only with utter disregard of their face-value. Bartholomae, in another little article entitled 'Arische lokative mit *n*,' *ibid.* p. 25 fg., goes still farther and assumes that the *n*-cases of the heteroclitlic declensions in *r-n* also grew up on the basis of a locative in *n*, and he does not hesitate to take very sturdily the consequences of this view: they may be stated by saying that the entire declension of the words for 'liver,' *ἡπαρ*, *-ατος*, etc., or 'blood,' Vedic *ásrj*, *asnás*, etc., has grown up on the basis

Words for seasons and divisions of time also present here and there minor adaptive groups or instances of assimilation of single forms. It is certainly not accidental that *vasantā-* spring and *hemantā-* winter are formed exactly alike; as far as the secondary *-tā-* is concerned one may mention *muhūrtā-* moment in the same connection. The suffix *-ṃa-* occurs in Vedic *samvatsarīṇa-* yearly and *prāvṛṣṇam* (sc. *āhar*) belonging to the rainy season, *varṣa*. The identity of the endings in *au(c)tumnus* and *vertumnus* may not be altogether accidental. The suffix *d* of Sk. *ṣarād* autumn is repeated—not accidentally it may be supposed—in Ohg. stem *lengiz-*, Ags. *lenct-en*, spring, lent; it is to be noted that to our conception these two words for season are opposites, though they were probably not felt to be so in the region of the earth in which they were formed. The assimilation of opposites is especially frequent in names for divisions of time: Armenian *jmeṛn* and *amaṛn* winter and summer (cf. above) palpably exhibit similarities of structure too close to be accidental. Brugmann, *Grundriss* ii. p. 453, note 2, even assumes that the *m* in the words oldest I. E. stem for winter, Lat. *hiem-s*, etc., has come in the place of *n* owing to the *m* of the I. E. stem *sem-* summer. The German words for summer and winter often influence the gender and declension of one another; see Kahle, *ibid.* p. 20; Schmidt, *ibid.* p. 207. It is now well known that Lat. *diurnus* is patterned after *nocturnus*, while on the other hand *noctū* is patterned after *diū*; that Ohg. *dīnija* by day is formed after *noštija* by night; that both ending and gender of Ohg. *tages* have passed over to Ohg. *nahtes*; that the stem Vedic *doṣās-* evening is a transformation of *doṣā* after the analogy of *usās-* morning, at AV. xvi. 4, 6; see Brugmann, *Berichte der Königl. Sächs. Gesellsch.* 1883, p. 192; Schmidt, *ibid.* p. 207. The solitary form *naktābhīs*, RV. vii. 104, 18 = AV. viii. 4, 18, may possibly, though

of original locatives. One may ask whimsically how often the ancient Indo-Europeans, who were scarcely advanced bacteriologists, had occasion to employ the expression 'in the blood.' The verisimilitude of this entire line of theories seems to lie solely in the fact that the suffixes *-n* adapted themselves very early to designations of time and space; here locative function prevails. When winter, or summer, day or night are mentioned in simple non-reflective language it is naturally and almost always 'in winter,' 'in summer,' 'by day,' 'by night,' and the investigator may be led to seek the cause of this preponderating, but accidental locative function in any marked peculiarity of form, although this peculiarity may be due to a totally different line of historical causes.

not probably, turn out to be an analogical opposite of *dhabhis* (see above, p. 19).

II. Adaptation in other substantival categories.

In the following we shall assemble a few additional cases of the adaptation of suffixes from various quarters of I. E. speech. No attempt to exhaust the subject in any direction is intended; my object is rather to put into stronger relief the explanations suggested in the preceding pages, and, what is more important, to push forward to a more prominent place this mode of inquiry, whose ideal outcome is to decide in investigation the fate of no word without having first surveyed the whole line of its lexical relatives.

The authors of the Sanskrit lexicon of the Petersburg Academy were first to indicate that adaptation was at work very early in establishing the prevailing forms of the earliest I. E. category of nouns of relationship. In Vol. iv. p. 690a, note (s. v. *mātār*), they say: '*pītar* and *mātār* sind zwar urindogermanisch, aber schwerlich die ältesten namen für vater und mutter. Diese werden *pa* und *mā* oder ähnlich (vgl. *tata* und *nanā*) gelautet haben, und diese naturlaute mögen in einer späteren schon reflectierenden periode der sprache bei der bildung von *pītar* und *mātār* maassgebend gewesen sein.' From proethnic times come the words of relationship *pātér*- father, *mātér*- mother, *bhrāter*-, *bhrātor*- brother, *dhuḡhātér*- daughter, *suśor*- sister; *daiuér*- (*dhāp*, Lat. *levir*) husband's brother; the stem corresponding to Vedic *yātār*-, Gr. *elvárep*-es or *elvárep*-es, Lat. *janitr-ic-ēs* brothers' wives (strong stem *ēnāter*-; weak stem *īñtér*-); and the stem corresponding to Vedic *jāmatar*- (*vijāmātār*-) son-in-law (cf. *γαμβρός*).

We may regard it as certain that the spread of the suffixes *-ter*-, *-er*- over this category began with some one or two words of relationship, in which the suffix had the ordinary function of agency, without, of course, any implication of relationship. The word for father seems to have the best claim to be considered the originator of the category: *pātér*- seems to contain the same root as *pó-ti-s* (Sk. *pāti-s*, *πάσι-s*) husband and *né-pót* nephew, grandchild (cf. Leumann in Festgruss an Böhlingk, p. 77). By the side of *pātér*- 'protector,' used as a frozen epithet of father, stood *pā*, the I. E. 'lallwort' for father. By proportional analogy the 'lallwort' for mother would give rise to *mātér*- (*pa*: *pātér* =

mā:x, i. e. *māter*-).¹ The propagation of the suffix after that would be a natural consequence.

Especially interesting and corroborative are the cases in which the suffixes or case-endings of the nouns of relationship in *-ter*-, *-er*- make inroads on other nouns of relationship within the history of the individual languages. Thus the Vedic stem *nānādar*-husband's sister, which occurs but a single time at RV. x. 85, 46, is in all probability a tentative formation according to this type.

The stem I. E. *népōt* nephew, grandchild partially passes over into the *r*-declension in Indo-Iranian times: e. g. Vedic dat. sg. *nāptre*, somewhat later (TS. i. 3, 11, 1) acc. sg. *nāptāram*; Zend gen. sg. *nafēdrō*-, acc. sg. *nāptārem*. Similarly Vedic *pāti*-s in the sense of husband—not in the sense of 'lord'—has in various cases assumed case-endings like the nouns of relationship, e. g. gen. *patyūr*(-us) like *pitur*(-us): in this it is followed in a single case by the stem *jāni*- wife, which also makes the gen. *jānyus* in the Veda. These again are followed by *sakhi*- friend, which makes gen. *sākhyus*. The anomalous dat. plur. *viāsi* (for **viēsi*) unquestionably follows *πατράσι*, *θυγατράσι*; cf. Wackernagel in KZ. xxv. 289. Possibly the Germanic forms corresponding to I. E. *daiuēr*- brother-in-law which exhibit a guttural, Ags. *tācor* and especially Ohg. *zeihhur*, are indebted to forms of I. E. *sveḱuro*- father-in-law for its appearance. Cf. especially Ohg. *svēhur*.²

An I. E. secondary suffix *-bho-* is employed extensively in Sanskrit and Greek for the formation of names of animals. Thus, Vedic or Sanskrit *vṛṣabhā*- and *ṛṣabhā*- bull, *ṣarabhā*- a fabulous animal, *gardabhā*- and *rāsabha*- ass, *ṣerabha*- snake, and a list of eight others offered by Whitney, Sk. Gr.² 1199a. In

¹ Cf. the somewhat different view advanced by Delbrück, Die Indogermanischen Verwandschaftsnamen, p. 68 fg. Delbrück records the interesting observation that the word *pitar*- never means 'progenitor' in the Rig-Veda.

² Note in this connection the little Germanic category formed with a suffix containing gutturals to express collectives from nouns of relationship: Goth. *brōprahans* brothers; Old Norse *feðgar*, plur. tant. masc. father and son; *moeðgur*, plur. tant. fem. mother and daughter, and the neuter pluralia tant. *feðgin* father and mother; *moeðgin* mother and son; *systkin* brother and sister, *frippe* pair of lovers. See Kluge, Stammbildung, §68a; Schmidt, Pluralbildungen, p. 16. No one seems to be able to point out the exact source of this adaptation. For other designations of relatives, etc., see also Kluge, *ibid.* §§25, 26.

Greek *ἐλαφο-s* deer; *ἐριφο-s* young goat; *κίραφο-s* fox; *κόραφο-s* raven; *κάλαφο-s*, *ἀσκάλαφο-s* owl, and a few others cited by Brugmann, *Grundriss* ii. p. 204. Here also it is safe to judge that the ending *-bho-* turned up accidentally in some one or a few designations of animals, and was propagated either in I. E. times or by Sanskrit and Greek, each on its own account. We are not in the position to suggest the starting-point for the development. In Kluge's *Stammbildung* groups of animals formed with one and the same suffix are mentioned in §§3, 6, 18, 28, 34, 84, 100. The most interesting of these are those which are felt to be imbued with such force in the consciousness of living dialects, e. g. *-chs* in Nhg. *ochs*, *fuchs*, *luchs*, *dachs*, *lachs* (cf. K. 34); *-er* in Nhg. *kater*, *biber*, *hamster*, *tieger*, *panther*, *gäns-er-ich* (late Mhg. *ganzer*, Engl. *gander*), *täuber-ich*, *adler*,¹ *geier*, *sperber*, etc. (cf. K. 34); *-ling* in *sperling*, *hänfling*, *hering*, *gründling*, *gressling*, *saibling*, *bückling*² (cf. K. 100). Unquestionably these suffixes would be put into requisition in modern German if the call for new designations of animals became sufficiently imperative.³

Words for color are especially prone to adaptive influence. In Latin and German the I. E. suffix *-uo-*, intrinsically one of the most nondescript formative elements, develops this special function: *helvu-s* yellow, Ohg. *gelo*; *flavus* e viridi et rufo et albo concretus (Fronto, in Gellius ii. 26, 11), perhaps identical with

¹ A patent case of assimilation to this class: *adler* = Ohg. *adal-ar* 'edel-aar.'

² Possibly another case of assimilation to this class: a variant form of the word is *bücking*.

³ In Vedic *sūkard-* hog, boar I would also see the influence of incipient adaptation. The word is best explained upon the basis of a stem **sū-ka* (cf. Old Welsh *hucc*, Cornish *hoch*: whence is borrowed English hog), i. e. stem *sū-* with the quasi-diminutive suffix *-ko-*, frequent in designations of animals (cf. Persian *spāka* above). This **sūka-* came under the influence of Ved. *vyāghrd-* tiger (cf. also Sk. *mājārd-* cat): the adaptation may have been promoted by the claims of popular etymology which would gladly seize upon a word *sūkard-*, since it suggests *sū-kard-* 'making the sound *sū*.' My colleague, Dr. H. A. Todd, kindly draws my attention to the following very parallel cases of assimilation in names of animals from the Italian: *n* appears for *l* in *licorno* from *unicorno* unicorn after the pattern of *lifante* = *elefante* elephant: Meyer-Lübke, *Italianische Grammatik* (Leipzig, 1890), §167, end. Also, the two designations of fishes *sargus* and *pargus* frequently assimilate: Tuscan *parago* to suit *sarago*, and conversely Genoese *sagau* after *pagau*: *ibid.* §295, end.

Ohg. *blāo* blue;¹ *gilvu-s* light yellow; *fulvu-s* reddish yellow (Fronto, *ibid.*); *rāvu-s* grey; *furvu-s* dark. For the Germanic forms, Ohg. *faro* colored; *ēlo*, *gēlo* yellow, *salo* black, *blāo* blue, *grāo* grey; Low Germ. *falo* fallow; Ags. *baso* purple; see Kluge, *Stammbildung*, §186 b.² In Sanskrit the suffix *-ta* (*-ita-*) is adapted to the same use: *hārīta-* yellow, *āsīta-* black, *pālītā-* grey, *rōhita-*, *lōhita-* red, *śvetā-* white, *gyetā-* reddish-white, *éta-*, *vy-éta-* variegated, *pīta* yellow. These again prevailing and quite irregularly form feminines in *-nī*: *hārīknī*, *āsīknī*, *pālīknī*, *rōhīnī*, and *lōhīnī*, *énī* and *vy-énī*, *gyénī*, *śvenī* (the last reported only by Vopadeva): they also have arrived at this uniformity by processes of assimilation, which can be in part traced with considerable certainty; see especially Schmidt, *Pluralbildungen*, p. 398 fg.³

The following additional categories may be mentioned: Words for office in Latin: The denominative verb *jūdicāre*, from *jūdex*, naturally forms an abstract in *-tu-*, *jūdicātu-s* office of judge. Of the same sort are *senātu-s*, *principātu-s*, *ducātus*, *pontificātus*, none of which have a verb corresponding to *jūdicāre* by their side. The suffix *-ātu-* has adapted itself to independent use as a suffix designating office, carrying with it the lexical value inherent in one or two stems with which it happened originally to be fused. Cf. with this the little groups designating officers, made with the suffixes *-ila-* and *-ana-* in German (Kluge, *ibid.* §§18, 20), of which Eng. beadle, Germ. büttel and Germ. schöffe (gen. schöffēn) are modern representatives. A movement in a similar direction is at the base of the Latin group *dominus*, *decanus*, *patronus*, *tribunus*: the primary formation *dominus* (= Sk. *damana-* 'conquering') may have started the category.

¹ I. E. *bhīyo-s*.

² Cf. Engl. yellow, fallow, fallow.

³ It is not at all rare for feminines to enter upon processes of adaptation from which the males are left out. Thus the Vedic, Latin, and Greek suffixes designating female divinities: Vedic *-āyī* and *-ānī* (*agnāyī*, *indrānī*, Whitney, Sk. Gr.² 1220, 1223b); Lat. *-ōna* in *Bellōna*, *Pomōna*, etc., *-ōnia* in *Feronia*, *Pellonia*, etc.; Greek *-ώνη* in *Διώνη*, *Σιμώνη*, etc. Cf. Göttinger Gelehrte Anzeigen, 1890, Nr. 19, p. 774. The originators of these lines of adaptation are difficult to point out, but we may regard it as certain that there is no intrinsic value in the suffixes which fits them especially for this function. *Διώνη* can be directly compared with Italic *Jānu-s*: the *n* here at least has nothing to do with fem. value. This may have been the originator of its entire class.

Designations of dwelling-places and repositories for various substances: In Greek the suffix -ών has adapted itself to such use: οἰνών, οἰνεών wine-cellar; παρθενών, παρθενεών maiden's chamber; ἀνδρών men's chamber; ἵππων stable; λασιών place covered with shrubbery; κενεών empty room. Cf. with this the Germanic designations of places in which plants grow, formed with the ending -ahi, Kluge, *ibid.* §67.

Professor Gildersleeve observes acutely that the suffix -γῆ in σῦριγξ pipe, σάλπιγξ trumpet, φάρυγξ wind-pipe, λάρυγξ throat, σπήλυγξ cave owes its considerable scope to adaptation. The notion of hollowness is common to all of them. Cf. the English expressions mouth of a cave, and mouth of a trumpet. This category is of especial interest on account of the comparative remoteness of the conception which binds it together. The Italian builds up on a similarly far-fetched *motif* a considerable class of nouns in -ime to designate varieties of ordure, fodder for animals, etc.; see Meyer-Lübke, §509 (I am again indebted to Dr. Todd for the reference): *coacime*, *governime*, *grassime* and *marcime* dung; *fondime* dregs, yeast, *lettime* straw, *mangime* fodder for domestic animals, *pastime* pasture, *becchime* fodder for birds. The link which binds these together is evidently that they are all of them materials handled by the peasant.¹ The particular form which originated the category is again unknown. In this connection I would express my own surmise that the 'secondary' suffix -ma of **dacruma*, *dacrima*, *lacruma* tear is borrowed from *spuma* foam: -ma as a secondary suffix is otherwise unknown in Latin, and the related words (δάκρυ, etc.) show no trace of it anywhere.

Of especial interest is the occasional appearance to a greater or lesser degree of the notion of contempt or disparagement in substantives formed with the same suffix. Such value attaches either altogether or at times to suffix -ulo- in Lat. *crēdulu-s*, *bibulu-s*, *gemulu-s*, *tremulu-s*, *querulu-s*, *pendulu-s*, *sēdulu-s*; it is perfectly evident that the notion of contempt did not dwell originally in the harmless suffix (I. E. -llo-), but that it was read into it from one or the other instance in which the root itself expressed contempt or disparagement.² A similarly contemptuous value

¹ Cf. Vedic *phṛiṣa-* and *kariṣa-* dung, and Çat. Br. ii. i. 1. 7: *samānaṁ vāi puriṣaṁ ca kariṣaṁ* ca 'p. and k. are the same.'

² Note the full continuance of this special function of the suffix in the English version of the Latin words: e. g. *querulous*, *bibulous*, etc.

seems to have gained something of a start in certain Lat. formations in *-aster*, e. g. *oleaster* wild olive, *pyriaster* wild pear, *porcaster* dirty hog, *filiaster* stepson, *Antoniaster*, *Fulviaster*, proper names with contempt attached; see Archiv für Lateinische Lexicographie i. 390.¹ In Lithuanian also a small group of nouns with suffix *-ėli-* show signs of having started that suffix on the road of development to a suffix of contempt: *netikėli-s* good-for-nothing, *paklydėli-s* crack-brain, *padūkėli-s* maniac, etc.; see Brugmann, Grundriss ii. p. 199. A touch of a similar development seems to crop out also with the Lith. suffix *-ju-*, ibid. p. 301. Cf. also the Germanic names for contemptible persons in *-(h)-ard* mentioned by Kluge 32, of which Engl. dullard, slug-gard, bastard, German bankert are modern representatives. I would finally index briefly a small number of German suffixal categories which are scattered through Kluge's Stammbildung: designations of relatives and persons pertaining to the house, K. §§25, 26; bastards and the like, 25; names of dynasties, 26; names of divinities and mock-words, 29; designations of male persons in *-ulf*, 32; of female persons in *-hildi*, 52; collectives of human beings, 69, 70; designations of utensils, 81, 85, 89, 90, 91; designations of coins, 100.

Lexical adaptation is by no means restricted to substantival categories: it has, however, its greatest opportunities in that quarter. The κ of $\sigma\upsilon\kappa\text{-}\acute{\epsilon}\tau\iota$ has passed over to $\mu\eta\text{-}\kappa\text{-}\acute{\epsilon}\tau\iota$, thus starting, as it were, an element *-κετι* in words with negative adverbial value. But it is limited by the small variety of negative stems at the disposal of the language. There is no reason why assimilation should not operate in all kinds of classes of verbs: verba sentiendi et declarandi, verbs of motion, verbs of carrying and fetching, verbs for eating and drinking, etc., etc. But the material is evidently less pliable; the number of available present suffixes is too small to permit the endowment of them with any too special value; these exercise a dominating influence on the forms of verbs, so as to render the adaptation of other final sound-groups almost impossible. At least the writer happens to be acquainted only with sporadic instances of assimilation which have not developed into formal categories by sufficiently extensive adaptation. The verb $\acute{\eta}\tau\tau\alpha\sigma\theta\alpha\iota$ to be worsted, in Sophocles, Thucydides, etc., is a modification of $\ast\acute{\eta}\tau\tau\omicron\upsilon\sigma\theta\alpha\iota$ (cf. $\acute{\epsilon}\sigma\sigma\omicron\upsilon\sigma\theta\alpha\iota$ in Hdt.) after the pattern

¹ This force of the suffix is still alive in Engl. poetaster, etc.

of its synonym *νικᾶσθαι* to be conquered; see KZ. xxx. 299. The verb *δύσγω* in the gloss of Hesychius, *δύσγω · ἀποδύω* is, perhaps, due to the influence of *μίσγω* (Od. σ 49: *ἔσω μίσγεσθαι* 'to enter a house'); see Morph. Unters. iv. 34, note. One of the best cases of this sort seems to me to be the following: the present system *δατέωμαι* to assign a portion is formed from the root *da* after the pattern of *πατέωμαι* = Goth. *fōdjan* feed; cf. KZ. xxvii. 267, note. In Lat. *versutus* dexterous, crafty, a modification of *versatus*, whenever its meaning touches upon that of *astutus* cunning, artful, this assimilation is restricted to the participle; cf. KZ. xxx. 300. We have recently, in the English of the United States, formed humorously the causative verb *to wine*, i. e. to entertain with wine, after the pattern of the causative *to dine* to entertain at dinner, itself a formation of no great antiquity. The vulgar pronunciation of *catch* is *ketch*, a type of pronunciation which is not extended to the closely parallel forms *hatch*, *latch*, *match*, etc. Possibly *ketch* is due to the influence of *fetch*, although it may be the residue of a form with umlaut = South English *ketch*, etc.; see Trautmann, Anglia iv., Anzeiger, p. 52. No doubt others can be added to this small list, but this is at any rate a rare process in the verb; as far as we know it has led to no adaptation of accidental sound-groups to the expression of definite verbal categories in any older period of I. E. speech.

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